Utah Division of Water Resources

Plan | Conserve | Develop | Protect Utah's Water Resources

Water for Utah

2021

www.water.utah.gov

Plan
Conserve
Develop
Protect

Utah's Water Resources

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Director's Message

Utah Division of Water Resources

Resiliency. It's a culture that Department of Natural Resources has cultivated since its establishment in 1967. It's one of many reasons I have loved and devoted my career to its mission and the Division's mission to plan, conserve, develop and protect Utah's water resources.

How Utah grows matters. It matters if the climate is changing and the way we receive our precipitation changes. It matters how communities are being planned and developed and the types of landscapes being put in and how people are irrigating outdoors.

The Division continues to focus on versatile and balanced solutions– by stepping up water conservation efforts in addition to pursuing needed development projects to meet the needs of future population. There's a saying that has stuck with me since I heard it, "you'll never build a project you don't plan for. And you'll never conserve a drop you don't have." This rings true because my focus throughout my career has been water planning that evaluates the state's water needs, long term projections, best practices and determines where projects are needed.

It's been a non-stop whirlwind for the past year. I was appointed director of Water Resources in December 2019. Then, 2020 happened bringing with it a pandemic, earthquakes, fires, drought, civil unrest and recent economic uncertainty. Throughout it all, the Division continued to work with local, state and federal agencies to ensure water is available, safe and reliable for current and future Utahns.

We are resilient and will continue to do our best to move the work forward to meet Utah's water needs now and into the future. We're committed to working collaboratively on solutions that will continue to nurture Utah's water needs.

Todd D. Adams, **Director**

"What the Division does impacts our state, citizens, environment and economy. How Utah grows matters."

Todd Adams, Director
Utah Division of Water Resources

Board of Water Resources

Over the past 71 years, the Board of Water Resources has provided financial assistance to private water companies, irrigation companies, municipalities and water districts for 1,501 projects. The Board is comprised of eight appointed individuals who represent the eight river districts in Utah. The Board has specific powers and duties which include approving projects, administering funding, contracting with agencies at the local, state and federal levels.

In 2020, 24 projects were contracted, with a total contribution from the Board of just over $42 million. These projects included:

- 7 small agricultural efficiency and improvement projects
- 6 dam safety projects
- 2 large agricultural efficiency and improvement projects
- 4 secondary irrigation projects
- 4 municipal water projects
- 1 municipal flood control project

$551M
in
Water Development
Loans

71 Years
1501 Projects

The Board

Blaine Ipson, Chair
Millard, Sanpete, Sevier, Piute & Wayne Counties

Kyle Stephens, Co-Chair
Weber, Davis & Summit Counties

Charles Holmgren
Box Elder, Cache & Rich Counties

Randy Crozier
Daggett, Duchesne & Uintah Counties

Juliette Tennert
Salt Lake & Tooele Counties

Norm Johnson
Carbon, Emery, Grand & San Juan Counties

Jim Lemmon
Beaver, Garfield, Iron, Washington & Kane Counties

Wayne Andersen
Juab, Utah & Wasatch Counties

Board of Water Resources

Legislative Authority

Protect Utah's rights to interstate waters

Direct comprehensive water planning

Manage Utah's construction programs and provide funding for dam safety compliance

Oversee compliance with water conservation plan requirements

Statutory Authority
Utah Division of Water Resources

Colorado River Compact (Utah Code 73-12a-1/3)

Provides for equitable division of use of the waters of the Colorado River System

Modification of Weather (Utah Code 73-15-1/8)

Research, evaluate and implement cloud seeding projects

Water Conservation Plan Act
(Utah Code 73-10-32)

State Water Plan
(Utah Code 73-10-15)

Colorado River Compact
(Utah Code 73-12A-1/3)

Bear River Development Act
(Utah Code 73-26)

Lake Powell Pipeline Development Act
(Utah Code 73-28-101/105; 201/203; 301/302; 401/405)

Water Development Coordinating Council
(Utah Code 73-10c-1/9)

Privatization Projects
(Utah Code 73-10d-1/9)

Amended Bear River Compact
(Utah Code 73-16-1/5)

Columbia Interstate Compact
(Utah Code 73-19-1/20)

Emergency Water Resources
(Utah Code 73-20-1/11)

Agricultural Water Optimization Task Force
(Utah Code 73-10g-202)

Secondary Water Metering
(Utah Code 13-10-34)

Water Conveyance Facilities Safety Act
(Utah Code 73-10-33)

Water Infrastructure Restricted Account
(Utah Code 73-10g-104)

West Desert Pumping Project
(Utah Code 73-23-1/6)

Dam Safety

Funding

The Legislature has appropriated grant funding since 1992 for dam safety projects.

From 1997 to 2007, ~$4.3 million was appropriated per year. In 2008, it was reduced to ~$700,000.

From 2009 to present, ongoing funding has been $3.8 million per year.

$3.8M

High-hazard

A dam is considered high-hazard when its failure risks the loss of life and property.

There are 99 dams that don't meet safety standards.

Homes are being built closer to dams, creating "hazard creep," which creates additional urgency to focus on these dams.

99 dams

Timetable

In order for the remaining high-hazard dams to be brought up to minimum safety standards, an estimated $250 million is needed.

At the current funding rate, it's estimated to take 66 years to bring dams up to safety standards.

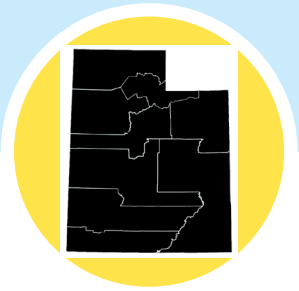
66 years

Open Water Data

Transparency Accessibility Engagement

The Division strives to improve the discoverability and transparency of data maintained by the state. Through the development of interactive apps, maps and data visualizations, staff at the Division facilitates public engagement with water data, making water issues more relevant and accessible.

Given Utah's diverse geography, establishing region-specific water conservation goals makes sense.

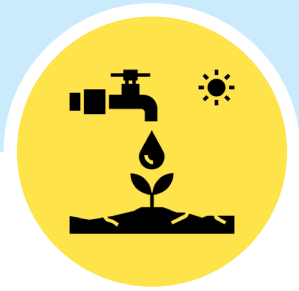


9 REGIONS

In 2019, the Division finalized the state's first-ever regional water conservation goals. Goals were established for nine regions around the state for municipal and industrial water conservation. These goals exclude agriculture, mining, and power generation water use.

IT TAKES EVERYONE TO BE SUCCESSFUL

The 2030 water conservation goals will require significant effort, increased attention, participation and funding from the legislature, state agencies, municipal water retailers, local elected officials, wholesale public water suppliers and citizens of Utah.

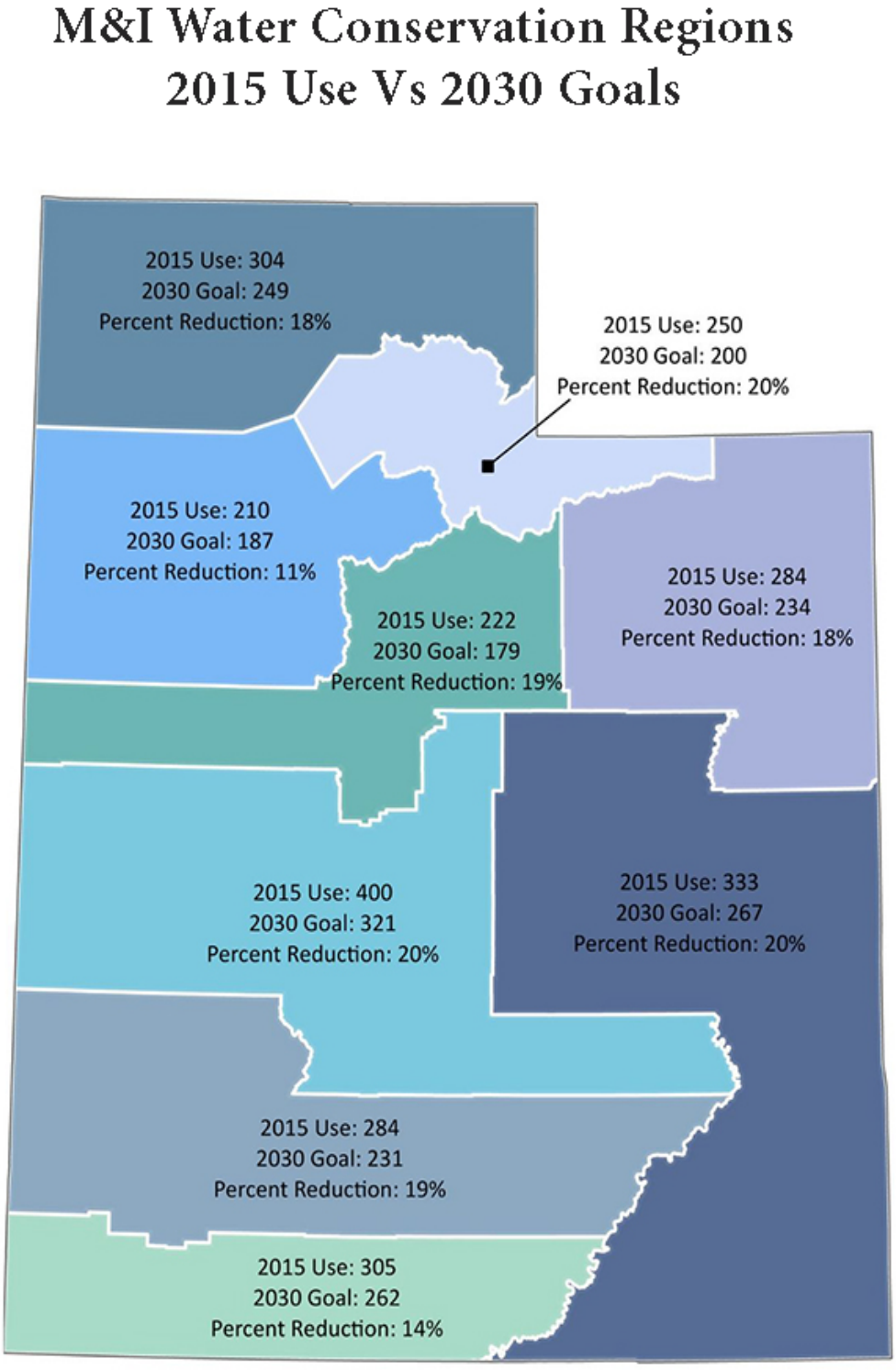


ENHANCED WATER CONSERVATION EFFORTS

Water conservation is critical in meeting needs for Utah's rapid growth.

There is more to be done throughout the state to be leaders in water conservation through policy, ordinances and initiatives.

What is your region's goal?



These goals will complement water development, help the Division fulfill its mission of planning and conserving utah's water resources, guide water suppliers in their efforts and promote effective policies.

State Water Plan 2021

The State Water Plan is comprised of a series of documents, including basin plans, water budget summaries, municipal and industrial water use reports, special topic reports, as well as the state-wide water plan.

The Division is working with the State Water Plan Advisory Committee and other agencies to publish a new State Water Plan in 2021. The purpose of the plan is to provide a comprehensive evaluation of Utah's water resources, commit to Division actions, and make recommendations. The plan recognizes the importance of coordinated watershed planning and recounts the challenges facing the state. The plan focuses on three water management principles:

- Reliable data
- Supply security
- Healthy environment

Planning

The Division is responsible for planning for the state's water resources– including all of the different water sources (surface, ground, spring and reservoir) that are used to meet water demands.

Division staff works to direct Utah water planning and policy. By striving to balance competing interests that results in a healthy environment, economy, and quality of life.

WATER USE REPORTING

Division staff compiles metered water use data provided to the Utah Division of Water Rights.

Secondary water is still largely unmetered and the Division estimates this use with industry approved methods. There is a 5 year trend decrease for areas that have installed secondary meters.

WATERSHED PLANNING

Coordinating with local stakeholders is essential to holistic watershed planning and management.

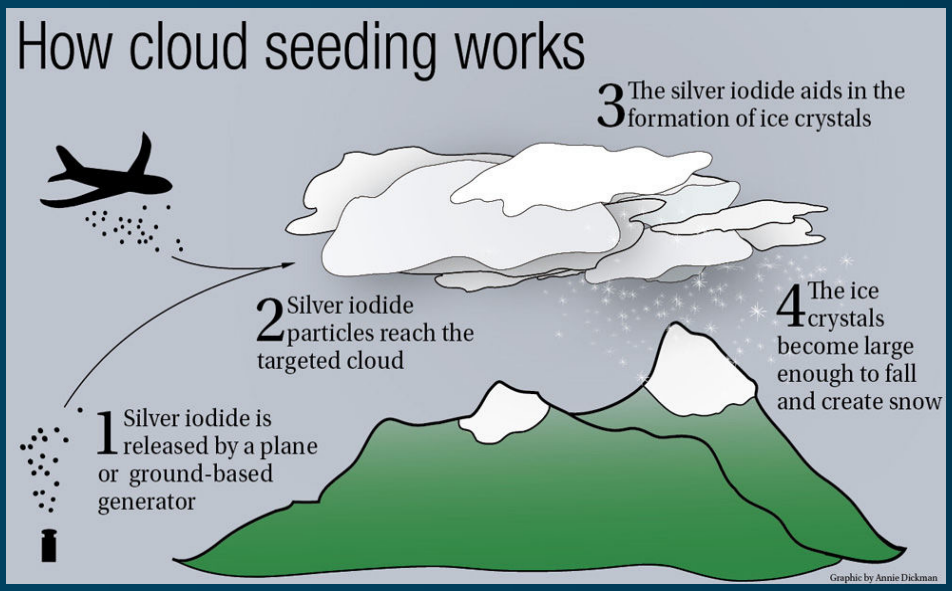
The Division has contracted with The Langdon Group for assistance in the development and coordination of establishing watershed councils.

DROUGHT

The Division leads a multi-agency water condition monitoring program. The drought coordinator hosts regular meetings to improve coordination throughout the state.

The Division is pleased to contribute to the US Drought Monitor. This input has increased representation of Utah's water conditions.

Cloud seeding



Snowpack is Utah's largest reservoir!

CLOUD SEEDING **INCREASES** PRECIPITATION ON AVERAGE

▲5% – 15%

Cloud seeding has long been recognized by water professionals as a feasible means to augment the natural water supply. Conditions are especially favorable in Utah where topography, climate and water storage reservoirs make winter snowpack enhancement cost-effective.

The Division provides $350,000 in matching funds

Utah enacted weather modification legislation in 1973, and an operational cloud seeding program was funded in 1976. The field program runs November to April and is funded jointly by the state and local water interests. Statistical analysis shows an average increase in precipitation of 5% to 15% in seeded areas at a cost of about $2.27 per acre-foot for the additional water.

Great Salt Lake

"In response to the decrease in Great Salt Lake levels, the Utah Legislature passed "Concurrent Resolution to Address Declining Water Level of Great Salt Lake" (HCR-10) in 2019. The resolution recognizes "the critical importance of ensuring adequate water flows to Great Salt Lake and its wetlands to maintain a healthy and sustainable ecosystem." To avoid adverse impacts to Utah's economy, environment, and the public health of its citizens, long-term watershed planning is required. HCR-10 recommended that a diverse group of stakeholders convene to make recommendations on how to ensure adequate water flows to Great Salt Lake. Their report was completed in December 2020."

https://ffsl.utah.gov/state-lands/great-salt-lake/

AVIAN LIFE

Great Salt Lake is the largest salt-water lake in the Western Hemisphere. It is designated a site in the **Western Hemisphere Shorebird Reserve Network** because of the abundant avian habitat.

HUMAN IMPACTS

Recent studies suggest that *human* water use has lowered the lake by approximately **11 feet** since the valley was settled in 1847, exposing submerged lakebed.

AIR QUALITY

Strong winds can erode the exposed lakebed and lift toxic dust into the local air affecting the Wasatch Front's air quality and nearby snowpack.

ECONOMY

Great Salt Lake recreation and wildlife habitat, industry and tourism contribute $1.3 billion to Utah's economy.

Water Development Projects

Lake Powell Pipeline

The Lake Powell Pipeline (LPP) is a proposed 140-mile water delivery pipeline that begins at Lake Powell near Glen Canyon Dam and ends at Sand Hollow Reservoir near St. George. The pipeline would deliver up to 86,000 acre-feet of water annually to 10 rapidly growing communities in Washington county. The pipeline would help meet future water demands, diversify the regional water supply, and enhance the water supply reliability, which currently relies on the Virgin River.

Water will be provided to **10 rapidly growing communities**

The Bureau of Reclamation is currently working on a Supplemental Environmental Impact Statement (EIS) that will be released to the public for review and comment once it's completed. A Final EIS is anticipated in 2022.

Following the environmental permitting, the Division will work to finalize design and financing for the project.

LPP diversifies the region's water supply

Sand Hollow Reservoir, Washington County

In Progress Supplemental Environmental Impact Statement

Bear River Development

In 1991, the Utah Legislature passed the Bear River Development Act, which authorizes and directs the Division of Water Resources to "…develop the surface waters of the Bear River and its tributaries through the planning and construction of reservoirs and associated facilities…"

RIGHT-OF-WAY ACQUISITIONS minimizes impacts to future communities

Planning for the development or storage of the Bear River has been ongoing for several decades. The BRD Act authorizes the DWRe to do preconstruction activities, which includes land acquisition. As development within Weber and Box Elder counties has increased, DWRe recognizes the need to acquire land and rights-of-way to minimize future impacts to the surrounding communities. This process is currently underway with DWRe working with interested sellers.

The 2019 Bear River Feasibility Study is the most recent study that shows that it is feasible to accomplish this project via storage development. The study includes 13 potential reservoir combinations, pipeline alignments, as well as updated cost estimates.

Colorado River

Interim Guidelines

The Legislature has appropriated grant funding since 1992 for dam safety projects.

From 1997 to 2007, ~$4.3 million was appropriated per year. In 2008, it was reduced to ~$700,000.

From 2009 to present, ongoing funding has been $3.8 million per year.

Demand Management

Demand Management is the activity of paying Colorado River water users on a **temporary** and **voluntary** basis to **suspend** water use.

The Division is engaged in public involvement with stakeholders and water users with Colorado River expertise. The University of Utah is assisting the Division with outreach.

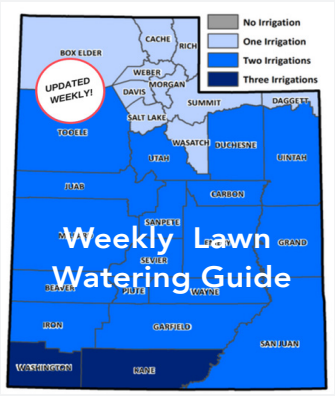
7.D. Review

The Bureau of Reclamation completed a review of the effectiveness of the Colorado River 2007 interim guidelines which outlined the process if Lower Basin shortages occurred and coordinated operations for lakes Powell and Mead.

Utah participated in the review and provided feedback throughout the review.

Water Conservation Tools & Programs

Water conservation and public engagement are focused on activities and programs to help Utahns reduce their water use and appreciate the value of water.



Utah Water Savers

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SLOW THE FLOW

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UTAH'S WATER-WISE PLEDGE
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Use Utah Water Wisely
UTAH WATER CONSERVATION FORUM

WATER CONSERVATION Certification
Two Day Certification Exam Included

WATERCHECK
A USU EXTENSION PROGRAM

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